



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,307	03/12/2004	Takahiro Hosomi	M1909.1125	5792

32172 7590 06/08/2007  
DICKSTEIN SHAPIRO LLP  
1177 AVENUE OF THE AMERICAS (6TH AVENUE)  
NEW YORK, NY 10036-2714

EXAMINER
----------

GONZALEZ, AMANCIO

ART UNIT	PAPER NUMBER
----------	--------------

2617

MAIL DATE	DELIVERY MODE
-----------	---------------

06/08/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/798,307	Applicant(s) HOSOMI, TAKAHIRO	
	Examiner Amancio Gonzalez	Art Unit 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 April 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This action is in response to Applicant's amendment filed on 04/10/2007. Claims 8 are still pending in the present application. This action is made FINAL.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 2, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramesh et al. (US Pat 6212368), herein after "Ramesh," in view of Steudle (US 7133382 B2), hereafter "Steudle," further in view of Scherzer et al. (US Pat 6799026), herein after "Scherzer."

Consider claim 1 as amended, Ramesh discloses a wireless terminal device, comprising a plurality of antennas (see Ramesh: col. 4 lines 42-45 and 59-61, col. 5 lines 7-15 and 38-44, col. 8 lines 24-30, figs. 1, 2, and 6). Ramesh discloses a radio section for receiving radio waves from a base station via one of the antennas (see

Art Unit: 2617

**Ramesh: col. 5 lines 38-44, col. 6 lines 50-63, fig. 4, col. 8 lines 46-48).** Ramesh discloses a reception level measuring section for measuring a reception level of the antennas including a antenna that is currently receiving and/or transmitting radio waves **(see Ramesh: col. 8 lines 30-40 and 51-67, col. 9 lines 1-9, figs. 6 and 7).** Ramesh discloses wherein the reception level measuring section measures at least one of the antennas reception level except the receiving and/or transmitting antenna in the period of time, switching antenna when the reception level of the receiving and/or transmitting antenna is equal to or less than the reception level in the period of time **(see Ramesh: col. 8 lines 45-61, fig. 7)**

Ramesh discloses wherein a **strategic timing is used to minimize the impact of measurements on the proper operation of the communications (see Ramesh: col. 4 lines 10-19, col. 7 lines 5-17)**, but does not particularly refer to temporarily interrupting transmission and reception for a period of time without disconnection in data communication on for a period of time without disconnection in data communication. Steudle discloses temporarily interrupting transmission and reception for a period of time without disconnection in data communication **(see Steudle: col. 1 lines 58-66, col. 3 lines 20-32).**

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Ramesh and have it include temporarily interrupting transmission and reception for a period of time without disconnection in data communication, as taught by Steudle, thereby defining measurement gaps generated

for making said measurements in a CDMA sytem, as discussed by Steudle (**see col. 1 lines 7-12**).

Ramesh, as modified by Steudle discloses performing antenna measuring and switching in interrupted periods of transmission/reception without interrupting data communication, but does not particularly refer to a controller, an element to which the functions described above inherently correspond to perform. Scherzer discloses a controller for controlling the switch between two antennae (**see Scherzer: Abstract, col. 4 lines 17-32, fig. 5 element 52**).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Ramesh as modified by Steudle and have a controller included in the description, as taught by Scherzer, thereby implementing a diversity reception of downlink signals.

Consider claim 2, Ramesh, as modified by Steudle and Scherzer, teaches claim 1 above, and further discloses wherein the reception level measuring section receives data in a certain channel from the base station (see Ramesh: col. 8 lines 30-45).

Consider claim 4, Ramesh, as modified by Steudle and Scherzer, teaches claim 1 above, and Scherzer further discloses measuring received signal strength from the base station (see Scherzer: col. 1 lines 60-62).

Consider claim 6, Ramesh, as modified by Steudle and Scherzer, teaches claim 1 above, and further discloses wherein the time period in which transmission and reception is temporarily interrupted is generated when performing communication by a

communication method that requires continuous transmission and reception during communication (see Ramesh: col. 7 lines 5-55).

Consider claim 7, Ramesh, as modified by Steudle and Scherzer, teaches claim 1 above, and Steudle further discloses compressed mode in a W-CDMA system. (see Steudle: col. 1 lines 58-66, col. 3 lines 20-32)

Consider claim 8, Ramesh, as modified by Steudle and Scherzer, teaches claim 7 above, and further discloses spreading and despreading (see Ramesh: col. 6 lines 38-47).

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramesh et al. (US Pat 6212368), herein after "Ramesh," in view of Steudle (US 7133382 B2), hereafter "Steudle," further in view of Scherzer et al. (US Pat 6799026), herein after "Scherzer," as applied to claim 2 above, further in view of Toskala et al. (US Pat 7079507), herein after "Toskala".

Consider claim 3, Ramesh, as modified by Steudle and Scherzer, teaches claim 2 above, but does not particularly refer to signal measurement from a broadcast channel. Toskala discloses signal measurements from a broadcast channel (see Toskala: col. 5 lines 66-67 and col. 6 lines 1-2). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Ramesh as modified by Steudle and Scherzer and have broadcast channel signal measurements included, as taught by Toskala, thereby monitoring signal power levels

Art Unit: 2617

from the base station in order to appropriately control the switching between the antennae according to the strongest received signal.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramesh et al. (US Pat 6212368), herein after "Ramesh," in view of Steudle (US 7133382 B2), hereafter "Steudle," further in view of Scherzer et al. (US Pat 6799026), herein after "Scherzer;" as applied to claim 1 above, further in view of f Harano (US Pat 6771944), hereafter "Harano."

Consider claim 5, Ramesh, as modified by Steudle and Scherzer, teaches claim 1 above, but does not particularly refer to inner or extensible antenna. Harano discloses a wireless device with inner antenna and extensible antenna (wipe antenna reads on extensible antenna –see Harano: col. 1 lines 23-27, fig. 1). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Ramesh as modified by Steudle and Scherzer and have an inner and a whip antenna included, as taught by Harano, thereby implementing a diversity receiving wireless terminal which includes a plurality or antennae.

### ***Response to Arguments***

Applicant's arguments with respect to **claims** 1-8 have been considered but are moot in view of the new ground(s) of rejection.

**Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Delaney Street  
Alexandria, VA 22314



Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amnion Gonzalez, whose telephone number is (571) 270-1106. The Examiner can normally be reached on Monday-Thursday from 7:30am to 5:00pm.

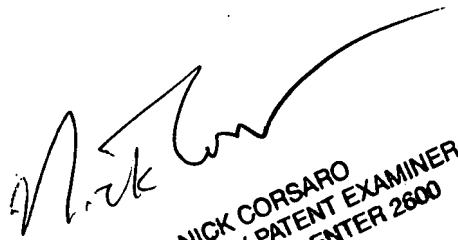
If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached at (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Amancio González  
AG/ag

May 30, 2007



NICK CORSARO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600